



Wireless Enhanced 9-1-1

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FCC Action

- Original Notice of Proposed Rule Making – 94-102
- First Report and Order – 96-264 – September 1996
- Two additional Report and Orders
- Three Memorandum of Opinion and Order



FCC Requirements

- ◆ Complete all calls to 911 regardless of billing.
- ◆ Phase I
 - Call back number
 - Cell site location
- ◆ Phase II
 - Actual location of caller within margin for error

Virginia History



- ◆ 1998 – House Bill 1331 establishes the Wireless Fund and creates the first Board.
- ◆ 1998 – House Joint Resolution 215 directed the Crime Commission to study E 9-1-1.
- ◆ 1999 – Budget amendment directs 9 localities to begin taking wireless 9-1-1 calls.
- ◆ 2000 – Senate Bill 148 restructures program.

Progress to Date



- ◆ Approximately 25 localities have implemented Phase I.
- ◆ The Board has provided over \$10 million to the PSAPs in FY00 and FY01 with an additional \$8 million already approved for FY02.
- ◆ Approximately \$3 million has been provided to the wireless providers.
- ◆ The Board is now focusing on Phase II.

Phase II Technology



- ◆ Handset based solution
 - GPS
- ◆ Network based solution
 - Time Distance of Arrival
 - Angle of Arrival
 - Signal Pattern Matching
- ◆ Hybrid solution

Phase II Accuracy



- ◆ Handset Based Solution
 - 50 meters / 67% of the calls
 - 150 meters / 95% of the calls
- ◆ Network Based Solution
 - 100 meters / 67% of the calls
 - 300 meters / 95% of the calls

Phase II Timeline



- ◆ Announce Technology by November 9, 2000
- ◆ Handset based
 - Begin selling by October 2001 (regardless of request).
 - Selling 25% of new by December 31, 2001.
 - Selling 50% of new by June 30, 2002.
 - Selling 100% of new by December 31, 2002.
 - Full penetration (95%) by December 31, 2005.
- ◆ Network based
 - 50% of area in 6 months and 100% within 18 months.

Impact of Towers



- ◆ Network based solutions require a minimum of 2 to 3 towers to be "visible" to the caller.
- ◆ Towers in a line makes location less accurate.



Impact of Towers



- ◆ Access to 9-1-1 relies on wireless telephone coverage.
- ◆ Wireless telephone coverage relies on cell sites.
- ◆ There is still a large part of Virginia without coverage.

Questions



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